

University of Groningen

Psychological well-being and self-esteem in Slovak adolescents

Sarkova, Maria

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2010

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Sarkova, M. (2010). *Psychological well-being and self-esteem in Slovak adolescents*. [Thesis fully internal (DIV), University of Groningen]. [s.n.].

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Adolescents' psychological well-being and self-esteem in the context of relationships at school

M. Sarkova, M. Bacikova-Sleskova, A. Madarasova Geckova, O. Orosova,
Z. Katreniakova, W. van den Heuvel, J. P. van Dijk

Submitted

Abstract

The aim of the study is to explore (1) an association between pupil-peer relationships and psychological well-being and self-esteem, (2) an association between pupil-teacher relationships and psychological well-being and self-esteem, and whether (3) this association varies according to pupils' experience of bullying or being bullied. In 2006, in a sample of 3694 elementary school students in Slovakia (mean age 14.3 years, SD 0.62; 51% girls) psychological well-being was measured using the GHQ-12 (depression/anxiety and social dysfunction) and self-esteem using the RSE (positive and negative self-esteem). Also, the pupil-peer, pupil-teacher relationship and bullying was measured in this study. Linear regression was used to analyse the data. Better pupil-peer relationships and also pupil-teacher relationships are significantly associated statistically with less depression/anxiety and social dysfunction (GHQ-12) as well as with more positive and less negative self-esteem (RSE). All bullying-categories were significantly associated with pupil-peer relationships and the four dependent variables. However, in the categories of aggressive victims and aggressive non-victims, the pupil-teacher relationship is not significantly associated with their psychological well-being and self-esteem. Also, in all subgroups better pupil-peer relationships were significantly associated with less depression/anxiety and social dysfunction as well as with more positive and less negative self-esteem.

Keywords: psychological well-being; self-esteem; relationships at school; adolescents

Introduction

The school environment has shown itself to be an important factor in explaining adolescent behaviour. This study will focus on the ways that relationships at school are connected with psychological well-being and self-esteem. While previous research has focused mainly on the family context, especially during childhood (Barth et al., 2004), the school environment has also been found to play a critical role in adolescents' development, particularly during later years. The relationships and experiences that pupils have at school have been found to influence their development, psychological well-being, self-esteem and social adjustment (Murray & Greenberg, 2000; Barth et al., 2004). The opportunity to experience stable relationships, responsibility, motivation, feelings of safety and positivity, as well as a sense of social relatedness, can have a powerful influence on the mental health of pupils (Bonny et al., 2000).

When students feel that they belong and have supportive relationships with their teachers and classmates, they are motivated to participate more actively in classes and school life (Hughes & Kwok, 2007). They are also less likely to be involved in deviant behaviour such as bullying (Hawkins et al., 1992). In their study, Barth et al. (2004) highlighted the relationship between individual behaviour, the classroom and school. Both of these environmental factors were found to play a role in accounting for children's aggression and peer relations. Furthermore, the classroom environment may have even played a more important role than the school environment. In another study, Konu et al. (2002) presented a conceptual model of well-being in school which consisted of four categories: school conditions, social relationships, means for self-fulfilment and health status. In relation to this conceptual model, they found that social relationships in schools were the second most important factor after self-fulfilment for explaining subjective well-being. These social relationships were found to explain 9.1% of variance for boys and 10.1% for girls in subjective well-being.

Relationships between pupil and teacher as well as peer relationships are the main social relationships in the school environment. These relationships can have an immediate effect on adolescents' social outcomes (Kilpatrick et al., 2000; Wentzel, 2003) as well as shaping their behaviour after they leave school. Supportive relationships with teachers, in addition to feeling safe and connected to the school, can provide pupils with the environmental and social support that is essential for mental health (Glover et al., 2000; Pianta et al., 2002). Relationships with peers have also been found to play a critical role in the development of social skills and feelings that are necessary for personal growth and social adjustment (La Greca & Lopez, 1998). And while peer relationships may have a positive influence on psychosocial development such as good psychological well-being and positive self-esteem, when pupils are not exposed to these relationships

there could be a risk of deviant behaviour such as drug abuse, alcohol and bullying (Patterson et al., 2000; Goldstein et al., 2005).

Previous studies have shown that this risk-taking and deviant behaviour belong to aspects of school life that have a considerable influence on pupils' psychosocial development (Hawker & Boulton, 2000; Bond et al., 2001; Rigby, 2003). In particular, bullying in schools has been recognized as a serious problem in recent years (Roland & Galloway, 2002). Bullying has been defined as a form of aggression in which a student or students physically or verbally assault another student without being provoked. The school environment is a place where bullying often happens, and this has a detrimental effect on both victims and offenders (Ma, 2002). Victims often suffer from a great loss of self-esteem that can linger into adult life (Boulton & Underwood, 1992; Olweus, 1994). This relationship between bullying and self-esteem has been confirmed in other studies (Hawker & Boulton, 2000; O'Moore & Kirkham, 2001). At school, victims were often found to be unpopular among peers as well as their teachers. They were rejected by their classmates and had few friends. On the other hand, bullies reported higher levels of popularity among peers. They were usually leaders and the centre of attention in a group (Perren & Horning, 2005). Other studies have shown that being bullied at school is a source of stress that can potentially have a significant effect on well-being (Slee, 1994; Bond et al., 2001). However, when adolescents feel like they are part of their school, they are less likely to engage in bullying and they report higher levels of emotional well-being (McNeely et al., 2002; Rigby, 2003). Therefore, it appears that there are differences in the psychological and social aspects of pupils who have been bullied and those who have bullied.

As the cross-national HBSC study has shown, violence among adolescents has emerged as a major concern in most countries. However, there are large cross-national differences in the prevalence of bullying behaviour (Currie et al., 2008). There are many reasons for the above-mentioned differences in the prevalence of bullying. One of the reasons could be the diversity of educational systems across countries, such as the educational curriculum and the role of the teachers and pupils in education. Based on this diversity, the associations between relationships in schools and bullying with some aspects of mental health could be expected to differ. In the countries of Central Europe the position of a teacher is still seen as dominant in teacher-pupil relationships. There is a lack of studies oriented on the associations between relationships at school (teacher-pupil and pupil-pupil relationships) and their influence on psychological well-being and self-esteem. The present study, therefore, focuses on the importance of both peer and teacher relationships on psychological well-being and self-esteem among those who are bullied and those who bully.

The aim of the present study is to explore whether (1) there is an association between pupil-peer relationships and psychological well-being and self-esteem, (2) there is an association between pupil-teacher relationships and psychological well-being and self-esteem, and whether (3) this association varies between groups based on pupils' experience of bullying or being bullied.

Methods

Sample

In 2006, a sample of 3725 adolescents was drawn from elementary schools in major Slovak cities representing different parts of the country: Bratislava (approx. 425,000 inhabitants, Western Slovakia), Zilina (approx. 157,000 inhabitants, Northern Slovakia), Kosice (approx. 240,000 inhabitants, Eastern Slovakia) and other smaller cities (approx. 20,000 – 40,000 inhabitants) in the eastern region of Slovakia. The study sample was evenly divided by gender (49% boys, 51% girls) and students ranged from 11 to 17 years old (mean age 14.3 years SD 0.65). From the sample, 24.6% came from Bratislava, 21.3% from Zilina, 32.1% from Kosice and 22% from other eastern region cities. Students under the age of 13 and over 16 were excluded in order to ensure a more homogeneous sample and thus avoid the influence of age extremes. Subsequently, the study sample consisted of 3694 students (mean age 14.3 years SD 0.62). Research assistants administered questionnaires during two regular 45-minute lessons in a complete 90-minute time period on a voluntary and anonymous basis in the absence of teachers. The overall response rate was 93.5%. Non-response was due to illness or other types of school absence.

Measures

Psychological well-being was measured using the two factors 'depression/anxiety' and 'social dysfunction' from the 12-item version of the General Health Questionnaire (GHQ-12) (Goldberg & Williams, 1988). The factor 'depression/anxiety' consisted of items 2, 5, 6, 9, 10 and 11 (loss of sleep, under strain, overcoming difficulties, feeling unhappy, loss of self-confidence, and feeling worthless). Items 1, 3, 4, 7, 8 and 12 (concentration, playing a useful part, making decisions, enjoying activities, facing up to problems and feeling happy) were components of the factor 'social dysfunction' (Sarkova et al., 2006). The questions compared how the respondents' present state differed from their usual state. A four-point Likert scale (0, 1, 2, and 3) was used, with scores for each factor ranging from 0 to 18. Higher score indicated poorer psychological well-being.

Cronbach's alpha was found to be 0.81 for the whole scale, 0.84 for the factor 'depression/anxiety' and 0.65 for 'social dysfunction'.

Self-esteem was measured using the two factors 'positive self-esteem' and 'negative self-esteem' from the Rosenberg Self-esteem Scale (RSE) (Rosenberg, 1965). Items 1, 3, 4, 7 and 10 (satisfied with self, having good qualities, equal to others, feeling valuable and a positive attitude) belonged with the factor 'positive self-esteem'. Items 2, 5, 6, 8 and 9 (no good at all, not proud, feeling useless, lack of respect, and feeling a failure) were components of the factor 'negative self-esteem' (Sarkova et al., 2006; Halama, 2008). Each item in both factors had four response options (1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree), and the score for each factor ranged from 5-20. Lower positive self-esteem scores indicated higher self-esteem while lower negative self-esteem scores indicated higher negative self-esteem. Cronbach's alpha for 'positive self-esteem' was 0.78, and for 'negative self-esteem' was 0.60.

The pupil-peer relationships were measured using question number 27 from the Pupils' questionnaire of the OECD Programme for International Student Assessment 2003. The respondents expressed their feelings about their classroom with regard to eight statements 'My classroom is place where....' (1) I don't feel a part of the group; (2) I make friends easily; (3) I feel I belong; (4) I feel awkward and inconvenient; (5) others pupils obviously like me; (6) I feel alone; (7) I am often bored; and (8) I don't like to go. The answer possibilities used a five-point scale from 1="strongly agree" to 5="strongly disagree". The sum score ranged from 8 to 40, with a lower score indicating better relationships. Cronbach's alpha for this questionnaire was 0.83.

The pupil-teacher relationships were measured using fifteen statements in which the respondents expressed opinions about their teachers. The measure was inspired by and adapted from the Inclusion of Other in the Self (IOS) Scale developed by Aron, Aron, and Smollan (1992). Each of these statements (e.g. 'they like me a lot', 'they are very conscionable', 'they usually praise me', 'they help me a lot'.) started with the following question 'When you think about your study in elementary school, how do your teachers behave towards you?' The answers were on a seven-point scale from 1="strongly agree" to 7="strongly disagree". The sum score ranged from 15 to 105. A lower score reflected better relationships between the pupil and teacher. Cronbach's alpha for this scale was 0.83.

Bullying behaviour was measured by two questions in six bullying categories. This measure was inspired by the questions regarding bullying at schools previously used in the international study into Health Behaviour in School-aged Children (HBSC) (Currie et al. 2008). The respondents answered the questions "Have you ever been part of following situations?" and "Have the following situations ever happened to you?" in six categories: (1) physical assault, beating; (2) unpermitted borrowing

of things; (3) enforcement of senseless orders; (4) ridicule or cruel nicknames; (5) threats, verbal insults; (6) intimidation. Respondents were then divided into four distinguishable character profiles associated with bullying: normative contrasts (those who neither bully nor are bullied); passive victims (those who are/were bullied); aggressive non-victims (those who bullied); and aggressive victims (those who bullied and who are also bullied) (Schwartz, 2000; Woods & White, 2005).

Statistical analyses

Firstly, linear regression was used in the whole sample to explore the associations between pupil-peer and pupil-teacher relationships and psychological well-being and self-esteem. The two factors of psychological well-being (the depression/anxiety and social dysfunction subscales of GHQ-12) and self-esteem (positive and negative self-esteem subscales of RSE) were used as dependent variables. Next, the whole sample was divided into four groups (normative contrasts, passive victims, aggressive non-victims and aggressive victims) and linear regression was used to explore the associations of pupil-peer and pupil-teacher relationships with the two factors of psychological well-being and two factors of self-esteem in these four groups. Analyses were done using the statistical software package SPSS version 12.1.

Results

Firstly, the associations of pupil-peer and pupil-teacher relationships with the 'depression/anxiety' and 'social dysfunction' factors of the GHQ and the 'positive' and 'negative self-esteem' factors of the RSE in the whole sample were analysed. Both pupil-peer and pupil-teacher relationships had a strong association with all dependent variables ($p \leq .000$) (Table 8.1). The better the relationships pupils reported, the better their psychological well-being, the higher their positive self-esteem and the lower their negative self-esteem.

Table 8.1 The association of the pupil-peer and pupil-teacher relationships with two factors of psychological well-being and self-esteem

	Psychological well-being		Self-esteem	
	depression/ anxiety β	social dysfunction B	positive self- esteem β	Negative self- esteem B
pupil-peer relationships	-.20 ***	-.17***	.25 ***	-.27 ***
pupil-teacher relationships	-.10 ***	-.11 ***	.10 ***	-.08 ***
R ²	6%	6%	8%	9%
F value	89.22	74.60	126.14	132.30

Notes: *** $p \leq .000$

Next, the sample was divided into the four groups associated with bullying behaviour (normative contrasts, passive victims, aggressive non- victims and aggressive victims). Table 8.2 shows the number of respondents in each group. The association of pupil-peer and pupil-teacher relationships with both factors of the GHQ and the RSE was explored in separate groups.

Table 8.2 Number of respondents in the groups associated with bullying behaviour

	N	(%)
Bullying behaviour		
Normative contrasts	1 334	(36.1)
Passive victims	1 243	(33.6)
Aggressive non-victims	413	(11.2)
Aggressive victims	704	(19.1)

Normative contrasts – those who neither bully nor are bullied;

Passive victims – those who were bullied;

Aggressive non-victims – those who bullied;

Aggressive victims – those who bullies and who are also bullied

Normative contrasts

In the normative contrasts group (those who neither bully nor are bullied) all associations between both the pupil-peer and pupil-teacher relationships and the dependent variables were found to be statistically significant (Table 8.3).

Passive victims

The results for the passive victim group (those who are/were bullied) were found to be similar to those of the group of normative contrasts, whereby all dependent variables were statistically associated with the pupil-peer relationships ($p \leq .000$). Similarly, the associations between the pupil-teacher relationships and all dependent variables were found to be significant (Table 8.3).

Aggressive non-victims

In the aggressive non-victims group (those who bully), the associations between pupil-peer relationships and all dependent variables were found to be significant. In addition, the association between pupil-teacher relationships and 'depression/anxiety', 'social dysfunction' and 'negative self-esteem' were significant. However, the positive self-esteem factor of the RSE was not significantly associated with the pupil-teacher relationships in this group. (Table 8.3)

Aggressive victims

For the aggressive victims (those who were bullied and also bully), the associations between the pupil-peer relationships with all dependent variables were found to be significant (Table 8.3). Pupil-teacher relationships were significantly associated with 'social dysfunction' and 'positive self-esteem' but not significantly associated with 'depression/anxiety' and 'negative self-esteem'.

The independent variables (pupil-peer and pupil-teacher relationships) explained between 3% and 16% of the variance of the dependent variables. The highest explained variance (16%) was in positive self-esteem for the group of passive victims. In addition, 11% of explained variance was found in the group of passive victims for negative self-esteem and 10% of explained variance for social dysfunction in the group of aggressive non-victims (Table 8.3).

Table 8.3 Linear regression: the pupil-peer and pupil-teacher relations on two factors of psychological well-being and self-esteem in four profiles associated with bullying

	Psychological well-being				Self-esteem			
	'depression/ anxiety'		'social dysfunction'		'positive self-esteem'		'negative self-esteem'	
	β		β		β		β	
	p		p		p		p	
Normative contrasts								
pupil-peer relationships	-.17 .00		-.13 .00		.19 .00		-.27 .00	
pupil-teacher relationships	-.09 .00		-.11 .01		.12 .00		-.06 .05	
R ²	5%		3%		6%		8%	
F-value	25.43		15.83		34.50		48.84	
Passive victims								
pupil-peer relationships	-.24 .00		-.22 .00		.32 .00		-.28 .00	
pupil-teacher relationships	-.10 .00		-.13 .00		.17 .00		-.12 .00	
R ²	8%		8%		16%		11%	
F-value	43.67		41.10		89.30		59.88	
Aggressive non-victims								
pupil-peer relationships	-.15 .00		-.15 .01		.15 .01		-.14 .01	
pupil-teacher relationships	-.19 .00		-.24 .00		.10 .29		-.15 .01	
R ²	6%		10%		3%		5%	
F-value	11.44		16.64		4.52		8.24	
Aggressive victims								
pupil-peer relationships	-.15 .01		-.15 .01		.19 .00		-.23 .00	
pupil-teacher relationships	-.04 .41		-.12 .01		.09 .01		.01 .98	
R ²	3%		4%		5%		5%	
F-value	6.88		10.56		12.70		13.92	

Notes: *** $p \leq .000$; ** $p \leq .01$; * $p \leq .05$

Discussion

This study aimed to explore the association of pupil-peer and pupil-teacher relationships with regard to psychological well-being and self-esteem in the context of bullying. The study found that relationships in school are strongly associated with psychological well-being and self-esteem among adolescents. In particular, the study found that for the whole sample, pupil-peer and pupil-teacher relationships are statistically significant regarding depression/anxiety and social dysfunction of psychological well-being as well as for positive and negative self-esteem. This supports the findings of previous studies that have shown that pupils who are satisfied with their relationships at school report higher levels of emotional well-being (Rigby, 2003; McNeely et al., 2002). Those who reported better relationships had better psychological well-being, higher positive self-esteem and lower negative self-esteem.

The classification of the sample into four categories associated with bullying behaviour (normative contrasts, passive victims, aggressive non-victims and aggressive victims) allowed us to explore further the association between pupil-peer and pupil-teacher relationships and the dependent variables. The findings showed that for all groups there were significant associations of pupil-peer relationships with all of the studied factors. However, it appears that for pupils that bully the relationship they have with teachers does not play an important role in their psychological well-being and self-esteem, because in this group no significant associations were found between the mentioned variables. Previous studies have shown that bullies like to feel dominant and therefore have problems with accepting the authority of teachers (Olweus, 1994; Kaltiala-Heino et al., 2000). These studies, in line with other findings (Rigby & Slee 1993; Ma 2002), also suggest that bullies are not more anxious and do not experience the feelings of low self-esteem in comparison with children who do not bully. On the other hand, several studies have found that pupils who enjoy a close and supportive relationship with their teacher are more engaged in positive activities in the classroom, accept teachers' directions and cope better with stress (Hughes & Kwok 2007, Little & Kobak 2003). Based on these findings it could be assumed that the quality of pupils' relationships with their teachers has important implications for their behavioural adjustment in the school environment and consequently on their well-being and self-esteem (Meehan et al., 2003). However, the results of the present study show that in the group of the aggressive non-victims and aggressive victims peer relationships seem to play an important role. Peer relationships can have an important influence with regard to bullying behaviour, because they can influence the occurrences of bullying. Low popularity and a lack of friends have been identified as

risk factors for victimization (Perren & Hornung 2005). Similarly, peers in the classrooms provide the audience that bullies require. Bullies are caught in a vicious circle in which they try to make friends to gain respect and admiration from their peers through bullying behaviour. Thus, this study has indicated that the school context has a major influence on pupils' general subjective *well-being*. The finding that the teacher-pupil relationships was not associated, as was expected in the aims of present study, according to the position of the teachers at schools in Central Europe gives us a signal of potential changes taking place. The authority of teachers seems to be in decline and offers an image of teachers' status within society as a whole.

Strengths and limitations

This study has some strengths and limitations. The strength of the study was that the research sample covered different regions of Slovakia, a Central European country with the target group of adolescents, giving us important information about the prevalence of bullying in the school environment. A limitation was that the cross-sectional study design did not give us the opportunity to study causal mechanisms; a longitudinal study would have provided greater insight into this issue.

Implications for prevention

Several findings from the study could be used as the basis for preparation of more effective anti-bullying programmes. Given the differences found in the connections of pupil—teacher relationships with the well-being and self-esteem between those who bullied and those who were bullied, it seems that the school environment can play an important role in implementing anti-bullying prevention strategies. As such, programmes should be oriented towards enhancing relationships between pupils and teachers. In particular, a positive classroom environment provides opportunities for teachers to receive information about bullying as well as to identify victims and bullies among pupils.

This work was supported by the Science and Technology Assistance Agency under contract Nos. APVV-20-038205, APVT-20-028802.

References

- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63, 596-612.

- Barth, J. M, Dunlap, S. T., Dane, H., Lochman, J. E., & Wells, K. C. (2004). Classroom environment influences on aggression, peer relations, and academic focus. *Journal of School Psychology, 42*, 115–133.
- Bond L., Carlin J.B., Thomas L., Rubin K. & Patton G. (2001). Does bullying cause emotional problems? A prospective study of young teenagers. *British Medical Journal, 323*, 480–4.
- Bonny, A.E., Britto, M.T., Klostermann, B.K., Hornung, R.W. & Slap, G.B. (2000). School Disconnectedness: Identifying Adolescents at Risk. *Pediatrics, 106*, 1017–1021.
- Boulton, M. J. & Underwood, K. (1992). Bully/victim problems among middle school children. *British Journal of Educational Psychology, 62*, 73–87.
- Currie C. et al (eds) (2008). Inequalities in young people's health: international report from the HBSC 2006/06 survey. WHO Policy Series: Health policy for children and adolescents Issue 5, WHO Regional Office for Europe, Copenhagen.
- Glover D., Gough, G., Johnson, M. & Cartwright, N. (2000). Bullying in 25 secondary schools: incidence, impact and intervention. *Educational Research, 42*, 2, 141–156.
- Goldberg, D. & Williams, P. (1988). A user's guide to the General Health Questionnaire. Windsor, NFER- Nelson
- Goldstein, S. E., Davis-Kean, P. E. & Eccles, J. S. (2005). Parents, peers, and problem behaviour: a longitudinal investigation of the impact of relationship perceptions and characteristics on the development of adolescent problem behaviour. *Developmental Psychology, 41*, 2, 401–413.
- Halama, P. (2008). Confirmatory factor analysis of Rosenberg self-esteem Scale in a sample of Slovak high school and university students. *Studia Psychologica, 50*, 3, 255–266.
- Hawker D.S.J. & Boulton M.J. (2000). Twenty years' research on peer victimisation and psychosocial maladjustment: a meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry, 41*, 441–55.
- Hawkins J. D., Catalano R. F., & Miller J. Y. (1992). Risk and Protective Factors for Alcohol and Other Drug Problems in Adolescence and Early Adulthood: Implications for Substance Abuse Prevention. *Psychological Bulletin, 112*(1), 64–105.
- Hughes, J. & Kwok, O. (2007). Influence of Student- teacher and parent – teacher relationships on lower achieving readers' engagement and achievement in the primary grades. *Journal of Educational Psychology, 99*, 1, 39–51.
- Kaltiala-Heino, R., Rimpelä, M., Rantanen, P. & Rimpelä, A. (2000). Bullying at school—an indicator of adolescents at risk for mental disorders. *Journal of Adolescence, 23*, 661–674.
- Kilpatrick, D.G., Acierno, R., Saunders, B., Resnick, H. S., Best, C.L. & Schnurr, P.P. (2000). Risk Factors for adolescent Substance Abuse and

- Depence Data from National Sample. *Journal of Consulting & Clinical Psychology*, 689, 1, 19-30.
- Konu, A.I., Lintonen, T. P. & Rimpela, M. K. (2002). Factors associated with schoolchildren's general subjective well-being. *Health Education research*, 17, 2, 155-165.
- Konu, A. I. & Rimpela, M.K. (2002). Well-being in schools: a conceptual model. *Health Promotion International*, 17, 1, 79 – 87.
- La Greca, A.M & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology*, 26, 2, 83-94.
- Little, M. & Kobak, R. (2003). Emotional security with teachers and children's stress reactivity: A comparison of special-education and regular-education classrooms. *Journal of clinical child and adolescent psychology*, 32, 127-138.
- Ma, X. (2002). Bullying in Middle School: Individual and School Characteristics of Victims and Offenders *School Effectiveness and School Improvement*, Vol. 13, No. 1, 63-89.
- McNeely, C. A., Nonnemaker, J. M. & Blum, R. W. (2002). Promoting School Connectedness: evidence from the National longitudinal study of adolescent health. *Journal of School Health*, 72, 4, 138-146.
- Meehan, B. T., Hughes, J. N. & Cavell, T. A. (2003). Teacher-student relationships as compensatory resources for aggressive children. *Child development*, 74, 1145-1157.
- Murray, Ch. & Greenberg, M., T. (2000). Children's relationship with teachers and bonds with school an investigation of patterns and correlates in middle childhood. *Journal of School Psychology*, 38, 5, 423-445.
- Olweus, D. (1994). Bullying at school: Long-term outcomes for the victims and an effective school-based intervention programme. In L.R. Huesmann (Ed.), *Aggressive behaviour: Current perspectives* (pp 97-130). New York: Wiley.
- O'Moore, M. O. & Kirkham, C. (2001). Self-esteem and its relationship to bullying behaviour. *Aggressive behaviour*, 27, 269-283.
- Patterson, G. R., Dishion, T. J. & Yoerger, K. (2000). Adolescent growth in new forms of problem behaviour: Macro- and micro- peer dynamics. *Prevention Science*, 1, 3-13.
- Pianta, R. C.; Stuhlman, M. W. & Hamre, B. K. (2002). How schools can do better: fostering stronger connections between teachers and students. *New Directions for Youth Development*, 93, 91-107.
- Perren, S. & Hornung, R. (2005). Bullying and delinquency in adolescence: victims' and perpetrators' family and peer relations. *Swiss Journal of Psychology*, 64, 1, 51-64.
- Rigby, K. (2003). Consequences of bullying in schools. *Canadian Journal of Psychiatry*, 48, 9, 583-590.
- Rigby, K. & Slee, P. T. (1993) Dimensions of interpersonal relating among Australian school children: implications for psychological well-being. *Journal of Social Psychology*, 133, 33-42.

- Roland, E. & Galloway, D. (2002). Classroom influences on bullying. *Educational Research*, Vol. 44, No. 3, 299–312.
- Rosenberg, M. (1965). *Society and the Adolescent self-image*. Princeton: New Jersey.
- Sarkova, M., Nagyova, I., Katreniakova, Z., Madarasova Geckova, A., Orosova, O., Middel, B., van Dijk, J.P, van den Heuvel, W. (2006). Psychometric evaluation of the General Health Questionnaire-12 and Rosenberg Self-esteem Scale in Hungarian and Slovak early adolescents. *Studia Psychologica*, 48, 1, 69–79.
- Schwartz D. (2000). Subtypes of victims and aggressors in children's peer groups. *Journal of Abnormal Child Psychology* 28:181–192.
- Slee, P. T. (1994). Situational and interpersonal correlates of anxiety associated with peer victimization. *Child Psychology and Human Development*, 25, 97-107.
- Wentzel, K R. (2003). Motivating Students to Behave in Socially Competent Ways. *Theory Into Practice*. 42, 4, 319-326.
- Woods, S. & White, E. (2005). The association between bullying behaviour, arousal levels and behaviour problems. *Journal of Adolescence*, 28, 381-395.